As the haustorium grows, its tissues multiply faster than they can distribute themselves through the host, and a disk is formed on the outside.

When the parasite blossoms, that portion of the stem not bearing flowers dies away, and only dense spiral masses of white flowers, closely clinging to the host, are to be seen. On stripping off the inflorescence, it is found that in many instances the haustoria have failed to enter the host, so that the inflorescence, for the distance of an inch or so, is obliged to receive its food-supply through a very slender connection with its host; the ratio of the size of the inflorescence to that of the connective being much greater than in most other plants; still the vigor of the blossoming and the abundance of the starch grains in the numerous bracts of the inflorescence attest that the parasite has been unstintingly fed.

It has been stated that that portion of the parasite not bearing flowers dies away. The remaining portion of the plant loses nothing of stability by this, for as the flowers develop and become more crowded, the spiral is made to bind more closely to the host, and the disks which are found at the base of the haustoria, just outside the host, give extreme rigidity to the union.

NOTE ON THE PRECISION OF THE SOLAR ATTACHMENT TO THE ENGINEER'S TRANSIT.

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It has often been claimed that the solar compass or solar attachment would give no better results than a needle compass, when the declination was well determined and when no unknown local attraction existed.

I have endeavored to determine the degree of average accuracy attainable with the Gurley attachment connected with a Gurley transit. In the instrument used, the limb is read to 20 seconds of arc, the vertical circle and the declination arc, to 30 seconds.

On October 30th, 31st, and November 1st, by observations on Polaris, made with a Fauth secondary triangulation transit, a meridian line was laid on the ground, and checked by a line fixed by the star at its eastern elongation, taking observations in the latter case with the telescope both direct and reversed.

In the course of three days following some sixty-five observations were made with the solar instrument, the angle between each solar meridian and the stellar meridian being measured. Following the usual law of error, the small errors were numerous. The largest angle read was 3′ 20″, while the minimum was represented by three readings of zero error. The average error of pointing for the sixty-five observations was 58″, with a "probable error for a single observation" of 32″. I am confident that this degree of precision can be reached, as I have had no extended practice in handling the instrument, and used no more care in the series of observations than should be used in the field.

I found that the range of error seemed to be greater during the morning than during the afternoon. Also that the morning observations generally gave a solar meridian to the west of the stellar meridian, with the reverse effect from the observations in the afternoon. Of 31 morning pointings, 23 were to the west of the stellar line. Of 34 afternoon pointings, 28 were to the east of the stellar line. The instrument used was in good adjustment. The allowance for refraction was that given in Gurley's manual. Whether the instrument on a continued series of observations would show this same peculiarity, I cannot say. If in the present case, however, the allowance made for refraction was too much, the marked tendency in the pointing would be accounted for.